

148 FERC ¶ 61,168
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Chairman;
Philip D. Moeller, Tony Clark,
and Norman C. Bay.

California Independent System Operator Corporation Docket No. ER14-2372-000

ORDER ACCEPTING PROPOSED TARIFF REVISIONS

(Issued September 5, 2014)

1. On July 7, 2014, the California Independent System Operator Corporation (CAISO) filed tariff amendments to improve its outage management process, change the timeline for scheduling coordinators to submit planned outages, and expand the outage options available to scheduling coordinators for resource adequacy resources. This order accepts CAISO's proposed tariff amendments, effective September 22, 2014, as requested.

I. CAISO's Filing

A. Background

2. CAISO states that it undertook an initiative several years ago to replace its current outage management process due to its lack of automation and usability features, which also coincided with a large increase in the number of transmission and generation outage requests that CAISO was processing. CAISO explains that its outage management staff and real-time operators, as well as market participants, raised numerous issues over the years concerning its outage management process. According to CAISO, parties identified the following issues: (1) the high-degree of interpretation required to transform pages of free-form text describing an outage into actionable data;¹ (2) the lack of mapping due to differences in equipment naming standards and equipment relationships between CAISO and market participants; (3) the inability to send automated messages to

¹ According to CAISO, this is a manual process called "Augmentation," where free-form text of outage information is received from participating transmission providers, which is then re-inputted by CAISO staff in the ISO systems that control the network model representations. CAISO Filing, Attachment C – Draft Final Proposal, Outage Management System Replacement, page 5 of 18.

various parties; and (4) the need for a user-friendly interface to quickly manage and submit forced outage and de-rate information.²

3. Thus, with this filing CAISO proposes to launch a new outage management system that it contends will improve all facets of outage scheduling – from the scheduling coordinator’s initial outage request, through the various review and outage processing steps, and during execution of the outage schedule that CAISO’s real-time operators monitor. Additionally, CAISO explains that the new system will allow it to process both transmission and generation outages within the same application³ rather than processing transmission and generation outages in separate systems as is the current practice. CAISO contends that the proposed changes will improve its ability to manage generation and transmission outages and better position it to handle the growing number of generation and transmission outages that it must manage and accurately reflect in the full network model.⁴

4. According to CAISO, the new system will also allow scheduling coordinators to use structured data, such as sequential drop-down screens and pre-populated templates, to submit detailed reasons for outage requests and ancillary service limitations for generators. CAISO contends that the use of structured data will minimize manual intervention and ensure that it appropriately considers ancillary service limitations in the day-ahead and real-time markets. In addition, CAISO argues that the capability of the application to manage detailed outage data will improve the accuracy of its reliability studies and better enable it to meet the requirements of the North American Electric Reliability Corporation (NERC) Outage Standard TOP-003-1 – Planned Outage Coordination.⁵

B. Overview

5. As detailed below, CAISO proposes three separate and distinct categories of tariff modifications to: (1) align the tariff requirements for the submission and content of

² CAISO Transmittal Letter at 6.

³ CAISO currently uses the Scheduling and Logging for ISO of California (SLIC) and the internally developed Outage Management System to manage generation and transmission outages respectively. CAISO Filing, Attachment C – Draft Final Proposal, Outage Management System Replacement, page 3 of 18.

⁴ CAISO Transmittal Letter at 6-7.

⁵ *Id.* at 6.

outage requests with new usability features and technological improvements of CAISO's new outage management system; (2) change the date by which scheduling coordinators for resources must submit planned outage requests from three to seven days prior to the start date of the outage, consistent with the timeline for requesting planned outages of transmission facilities; and (3) restructure the outage options available to resource adequacy resources to encourage earlier submission of outage requests and better accommodate outages without increasing the potential financial impact on resources.⁶

6. CAISO requests that the Commission accept the proposed tariff revisions effective September 22, 2014.

C. Outage Management System Provisions

7. Proposed tariff section 9.3.8.1 requires scheduling coordinators to include the nature of work to be performed in outage requests for transmission facilities and resources.⁷ According to CAISO, the new outage management system will only require the use of one outage request template, and allow the user to choose a "nature of work" category for each outage request to describe the type of work to be performed. CAISO explains that this will eliminate the need for multiple outage request templates and simplify the number of choices required by using pre-defined "nature of work" categories, while giving scheduling coordinators the option to additionally include the outage cause codes used by NERC.

8. Proposed tariff section 9.3.3(4) requires that each resource outage request include the required information for the resource at the aggregate project or plant level, as well as at the individual unit level if the outage will cause a unit de-rate of 50 MW or greater.⁸ CAISO explains that this modification will improve the accuracy of its real-time contingency analysis and state estimator solutions. Furthermore, CAISO explains that it will be able to provide more detailed outage modeling data to Western Electricity Coordinating Council (WECC), which will better support WECC's West-wide model project.

9. Proposed tariff section 9.3.3(3) requires that transmission outage requests provide structured and detailed outage modeling information at the facility level and/or breaker

⁶ *Id.* at 2.

⁷ *Id.* at 9-10.

⁸ *Id.* at 11.

switch level.⁹ CAISO states that this requirement will allow the participating transmission owner to provide the actual clearance points for a proposed outage, thereby minimizing the need for CAISO to interpret narrative-only outage requests. CAISO argues that the additional level of detail will improve the accuracy of the modeling results. The structured modeling format will also replace CAISO's existing manual process and allow the participating transmission owner to enter outage information that can be integrated with downstream systems for use in the state estimator, contingency analysis, and market application results.

10. According to CAISO, the new outage management system will provide a template for scheduling coordinators to report in a structured format any limitation on the resource's availability to provide each type of ancillary service. Proposed tariff section 9.3.3(4) leverages this enhanced functionality by requiring that resource outage requests include any limitations on the resource's ability to provide each type of ancillary services for which it is certified.¹⁰ The scheduling coordinator will input the information required by CAISO and the data will be utilized by the market systems.

11. Under proposed tariff section 9.3.9.1, CAISO establishes criteria to determine whether an approved maintenance outage for transmission facilities will require final approval by CAISO on the start date of the outage before work commences, as is the current practice, or whether the outage can be initiated and completed by the operator without final approval.¹¹ CAISO states that introduction of criteria, as well as electronic processing of outages, will greatly reduce the time spent by the control rooms of the participating transmission owners and CAISO to process routine outages, which will allow operators to regain the time to devote to other reliability related tasks.

12. CAISO proposes to modify tariff sections 9.3.10.6 and 9.3.10.6.1 to eliminate the requirements to submit a forced outage report, which currently must be provided to CAISO within two business days of the outage or risk possible sanctions by CAISO for failure to timely submit the report.¹² Based upon stakeholder feedback and a review of the reporting requirements, CAISO concluded that it no longer needs the report because the information can be obtained from the operator or scheduling coordinator if necessary. Without an underlying reporting requirement, CAISO also proposes to delete tariff

⁹ *Id.* at 12.

¹⁰ *Id.* at 13.

¹¹ *Id.* at 14.

¹² *Id.* at 15.

section 37.4.3.1, which requires an explanation of a forced outage as expected conduct and section 37.4.3.2, which imposes sanctions on operators for failing to submit the reports.

D. Timelines

13. CAISO proposes to change the timelines for resources to request outages and for outages to be classified as planned or forced as part of its outage management system overhaul. CAISO proposes to extend the advance notice requirement for resources to request forced outages from three days prior to the start of the outage to seven days prior to the start date.¹³ CAISO will classify outages requested eight days or more prior to the start date as planned while outages requested seven days or less prior to the start date will be classified as forced.

14. CAISO explains that under current tariff sections 9.3.6.3.1 and 9.3.3, the scheduling coordinator for a resource may schedule a maintenance outage with 72-hours advance notice; however, if the scheduling coordinator provides notice less than 72-hours in advance of the start of the outage, CAISO will classify the outage as forced. CAISO proposes to change this notice period for maintenance outages to seven days, which will correspondingly change the time periods for classifying outages as either planned or forced. According to CAISO, changing the notice period for planned outage from 72 hours to seven days will enhance CAISO's ability to improve its network model accuracy by providing sufficient time for CAISO to process and analyze outages.¹⁴ In addition, CAISO notes that the revised resource outage timelines align with the existing Commission-approved notice requirements and classification of outages for transmission facilities.¹⁵

E. Outage Options for Resource Adequacy Resources

15. According to CAISO, its initial proposal to change the timeline for requesting a planned outage did not include any changes to the outage options available to resource adequacy resources.¹⁶ Stakeholders raised concerns that CAISO's proposal would

¹³ The timeline for submitting the required advance notice excludes the day the request is submitted and the day the outage is scheduled to commence. *Id.* at 20.

¹⁴ *Id.* at 20.

¹⁵ *Id.* (citing *Cal. Indep. Sys. Operator Corp.*, Docket No. ER12-1972-000 (July 25, 2012) (delegated letter order)).

¹⁶ *Id.* at 22.

require resource adequacy resources to procure more substitute capacity to cover the amount of capacity that would be unavailable due to the forced outage or pay additional standard capacity product penalties due to the increase in the resource's forced outage rate. Accordingly, CAISO revised the outage structure to reduce the financial impact that changing the outage submittal timeline would have on resource adequacy resources due to the replacement rule and substitution process. CAISO proposes four outage options for resources adequacy resources: (1) resource adequacy maintenance outage with replacement, (2) resource adequacy maintenance outage without replacement, (3) off-peak opportunity resource adequacy maintenance outage, and (4) short-notice opportunity resource adequacy outage.

16. CAISO proposes to revise tariff section 9.3.1.3.3.1, which is the resource adequacy maintenance outage with replacement option, by changing the planned outage notice from three days to no less than eight days prior to the start date. In addition, if CAISO determines that system conditions will not be degraded and it approves an outage request submitted between four and seven days prior to the start date, CAISO proposes to classify the outage request as a forced outage but will not impose standard capacity product non-availability charges or availability payments to the resource.¹⁷

17. CAISO proposes a new tariff section 9.3.1.3.3.2, which is the resource adequacy maintenance outage without replacement option. Resource adequacy resources may, after the initial resource adequacy showings 45 days prior to the month, and up to eight days before the proposed start date for the outage, request a planned outage without providing replacement capacity. If CAISO determines that (i) system conditions and the overall outage schedule allow the resource to be out of service without having a detrimental effect on the efficient use and reliable operation of CAISO controlled grid, and (ii) the outage will not result in insufficient resource adequacy capacity during the outage period, CAISO may approve the request as a planned outage without replacement. If the resource submits the request no more than seven days and no less than four days in advance of the outage start date, and the outage meets the same reliability criteria as (i) and (ii) above, the CAISO may approve the request as a forced outage not subject the standard capacity product provisions in tariff section 40.9.¹⁸

18. CAISO proposes to revise existing tariff section 9.3.1.3.3.3, which is the off-peak opportunity resource adequacy maintenance outage option, by changing the planned advance outage notice from 10 days prior to the resource adequacy month to no more than 45 days prior to the resource adequacy month and extending the short advance

¹⁷ *Id.*

¹⁸ *Id.* at 24-25.

notice from at least three business days prior to the outage to no less than eight days. Under the proposed revision, if the outage meets the applicable requirements and CAISO determines that system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO-controlled grid, CAISO may approve the outage as a planned outage. If the resource submits the request no more than seven days and no less than four days in advance of the outage start date, and meets the aforementioned criteria, CAISO may approve the outage as a forced outage not subject to the standard capacity product non-availability charges and availability incentive payments.¹⁹

19. CAISO proposes to revise tariff section 9.3.1.3.3.4, which is the short-notice opportunity resource adequacy outage option, by changing the planned advance outage notice from 45 days prior to the resource adequacy month to four to seven days prior to the outage start date and offering the option to provide less than three days prior notice if the repairs are needed for reliability or require immediate attention to prevent equipment damage or failure without a requirement to provide replacement capacity or substitute capacity. The short-notice opportunity resource adequacy outage itself cannot exceed five days in length. CAISO may approve the request as a short-notice opportunity resource adequacy outage if it determines that: (i) the outage and the request meet the applicable requirements, (ii) system conditions and the overall outage schedule provide an opportunity to take the resource out of service without a detrimental effect on the efficient use and reliable operation of the CAISO-controlled grid, and (iii) the outage will not result in insufficient available resource adequacy capacity during the outage period. The approved outage will be considered a forced outage, but it will not be subject to the standard capacity product provisions in tariff section 40.9.²⁰

II. Notice of Filing and Responsive Pleadings

20. Notice of CAISO's filing was published in the *Federal Register*, 79 Fed. Reg. 41,267 (2014), with interventions and protests due on or before July 28, 2014. The City of Santa Clara, California, San Diego Gas & Electric Company, California Department of Water Resources State Water Project, Southern California Edison Company, Pacific Gas and Electric Company, Exelon Corporation, Modesto Irrigation District, and the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California submitted timely motions to intervene. A timely motion to intervene and limited protest was filed by NRG

¹⁹ *Id.* at 25.

²⁰ *Id.* at 26.

Energy, Inc. (NRG). On August 8, 2014, CAISO filed an answer to NRG's limited protest.

III. Discussion

A. Procedural Matters

21. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2014), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2014), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept CAISO's answer because it has provided information that assisted us in our decision-making process.

B. NRG's Limited Protest

22. In its protest, NRG argues that CAISO's proposal to change the advance notice required for planned outages from three days to eight days prior to the outage is unjust and unreasonable. According to NRG, CAISO's desire to align the outage timeline for generators with the timelines for transmission outages is unjustified because the proposed change will result in additional costs for generators. NRG explains that most transmission outages relate to upgrades or improvements of the system, while even well-maintained generating units can have operational problems on a day-to-day basis. Thus, NRG concludes, a longer lead-time for transmission outages is sensible based on the engineering realities of the technologies involved.²¹

23. NRG further disagrees with CAISO's contention that requiring generating unit outage requests on the same time frame as transmission outages provides better information for the market runs that begin three days in advance. NRG argues that earlier market runs, while potentially informative, are not financially reliable because market participants are well aware that advance market runs are not financially binding until the market runs conducted the day prior to the operating day. NRG also adds that the current time frame provides CAISO with sufficient time to factor in planned outage requests submitted only three days in advance for the day-ahead market run.²²

²¹ NRG Limited Protest at 3.

²² *Id.* at 5.

24. NRG also challenges CAISO's proposal to treat planned maintenance outages as "forced outages," when requested on seven or less days' notice, even if the outage request is approved by CAISO system planners. NRG states that CAISO's proposal on this point is inconsistent with the common practice of every other Independent System Operator (ISO),²³ which according to NRG, use "forced outage" to refer only to emergency outages where a unit is incapable of operating.²⁴ NRG adds that CAISO's proposal is contrary to all standard usages of the term "forced outage," including the definition adopted by this Commission and the U.S. Energy Information Administration, which, according to NRG, define a forced outage as "the shutdown of a generating unit ... for emergency reasons."²⁵ Accordingly, NRG requests that, if the Commission accepts CAISO's proposal, it do so subject to requiring CAISO "to adopt a more conventional terminology for planned outages."²⁶

C. CAISO's Answer

25. In its answer, CAISO states that NRG has failed to identify any "additional costs" allegedly imposed on generators by CAISO's proposal. CAISO explains that the same concern was raised during the stakeholder process and its proposal addresses it by not requiring replacement capacity for outages that scheduling coordinators request four to seven days in advance of the outage start date and exempting such outages from the substitution requirement and non-availability charges under the standard capacity product.²⁷

26. Further, CAISO argues that the fact that the Commission has approved different timelines for other ISOs and regional transmission organizations (RTOs) is irrelevant to whether the timelines proposed by CAISO are just and reasonable. CAISO explains that pursuant to court and Commission precedent, "there is not a single just and reasonable rate... [and] [s]o long as the end result is just and reasonable, the [proposal] will satisfy

²³ In support, NRG cites to tariffs and manuals of PJM Interconnection, the Midcontinent Independent System Operator, New York Independent System Operator Inc., ISO New England Inc., and Electric Reliability Council of Texas. *See id.* at 3-4.

²⁴ *Id.*

²⁵ *Id.* at 6 (citing to FERC Glossary available at <http://www.ferc.gov/market-oversight/guide/glossary.asp#o>).

²⁶ *Id.*

²⁷ CAISO Answer at 2-3.

the statutory standard.”²⁸ CAISO argues that it has successfully demonstrated that its proposal is just and reasonable.²⁹

27. Next, CAISO challenges NRG’s contention that the current time frame for submitting outage requests provides sufficient time for making adjustments in the day-ahead market. CAISO explains that given the extremely large volume of outage requests handled by CAISO, the current 72 hour time frame provides little, if any, time for CAISO to carefully consider how such outages impact the system and determine how to model them in the markets. According to CAISO, this increases the risk that CAISO might omit information or use less accurate information in the day-ahead market. CAISO argues that this situation can lead to divergence of day-ahead and real-time market results or potentially jeopardize grid reliability, thereby increasing the need for CAISO to rely on out-of market solutions.³⁰

28. In response to NRG’s contention that CAISO’s usage of the term “forced outage” is inconsistent with usage by other ISOs and the Commission, CAISO explains that since its inception its tariff has defined “Forced Outage” according to whether the outage could be factored into the market, not whether the outage is an emergency or unanticipated outage. CAISO states that it is not proposing to change that definition in this filing, and argues that NRG identifies no changed circumstances that now render that longstanding usage unjust or unreasonable.³¹

D. Commission Determination

29. We find CAISO’s proposed tariff revisions to implement its new outage management system to be just and reasonable and not unduly discriminatory, and we will accept them for filing, effective September 22, 2014, as requested.

30. As explained by CAISO, it undertook an initiative several years ago to replace the outage management process that it uses for coordinating and logging generation and transmission outages due to the lack of functionality in the current process and the nearly

²⁸ *Id.* at 3 (citing *Calpine Corp. v. Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,271, at P 41 (2009); *Cal. Indep. Sys. Operator Corp.*, 141 FERC ¶ 61,135, at P 44 (2012); and *New England Power Co.*, Opinion No. 352, 52 FERC ¶ 61,090, at 61,336 (1990), *aff’d sub nom. Town of Norwood v. FERC*, 962 F.2d 20 (D.C. Cir. 1992)).

²⁹ *Id.* at 4-5.

³⁰ *Id.* at 6.

³¹ *Id.* at 7.

100 percent increase in outage requests since 2004. In the instant filing, CAISO adequately demonstrates that its existing outage management system has outlived its useful purpose and that the new outage management system will be a vast improvement by providing greater detail of outage information that should enhance CAISO's ability to reliably operate its system. In addition, CAISO also seeks to streamline its outage management process in part by aligning the timeline for reporting planned resource outages with the timeline for reporting planned transmission outages. In July 2012, CAISO's proposal to extend the deadline for submitting transmission outage requests from three days to seven days was accepted for filing.³² The revision of the timeline for transmission outages was necessitated by CAISO's need to have sufficient time to complete outage analysis and provide approvals in time to comply with WECC reporting requirements.³³ CAISO cites the same concerns in support of the instant proposal, and we find that CAISO's reasoning here is persuasive. We also note that no party contests CAISO's general effort to reform its outage management system and the only party to protest CAISO's proposed tariff revisions – NRG – supports CAISO's efforts to replace SLIC through a new outage management system.

31. We find that the majority of CAISO's proposed tariff revisions are administrative in nature and necessary to address the fundamental changes CAISO is making to its outage management system. Aligning the tariff provisions with elements of the data that must be submitted in the outage management system will ensure that scheduling coordinators and/or operators of resources and transmission facilities are submitting the requisite information to CAISO and will provide a mechanism for enforcing the necessary data submission.

32. We also find CAISO's proposal to extend the timeline for requesting planned outages to be reasonable because it will enhance CAISO's ability to align and coordinate generation and transmission outages across its system. With respect to NRG's argument regarding other ISOs and RTOs having different timelines for submitting requests for maintenance outages, it does not affect our determination here. We find the adjustment to be acceptable based on the unique circumstances and capabilities of CAISO's system. As discussed herein, we find that CAISO's proposal satisfies this standard and adequately demonstrates the benefits of aligning the advance notice requirement for resource and transmission outage requests, thereby providing CAISO with a more complete picture of its system prior to when it starts to perform its market analysis.

³² *Cal. Indep. Sys. Operator Corp.*, Docket No. ER12-1972-000 (July 25, 2012) (delegated letter order).

³³ CAISO Transmittal Letter, Docket No. ER12-1972-000, at 3 (June 7, 2012).

33. Lastly, we decline to adopt NRG's request that we direct CAISO to adopt what NRG views as more conventional terminology for planned outages. We find that NRG's argument that extending the advance notice outage requirement from three to seven days will impose additional costs on generators is unpersuasive, in light of CAISO's proposed changes to its resource adequacy rules regarding replacement capacity and non-availability charges under the standard capacity product. Under CAISO's proposal, if a scheduling coordinator for a resource adequacy resource requests an outage between four and seven days before the outage start date, CAISO will treat the outage as forced, but the resource will not be subject to standard capacity product non-availability charges. These proposed tariff changes ensure that extending the requisite notice period for planned outage requests will not impose additional cost on generators, as NRG argues. For these reasons, we reject NRG's request to order CAISO to adopt a new definition of planned outages.

The Commission orders:

CAISO's proposed tariff revisions are hereby accepted for filing, effective September 22, 2014, as requested, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.